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United States Department of Agriculture

BUREAU OF FORESTRY

GIFFORD PINCHOT, Forester

FIELD PROGRAMME FOR AUGUST, 1904

A schedule of field work and assignments in the Bureau of Forestry will be issued monthly during the field season. The names of members whose assignments are indefinite and reference to projects for which plans have not been matured will necessarily be omitted.

The schedule is not intended to furnish field addresses for letters or telegrams, and unless the address of a member is given in this schedule or is definitely known, he should be addressed in care of the Bureau of Forestry, Washington, D. C.

Work conducted under the direction of the Forester is designated (F); Dendrology (D); Forest Management (M); Forest Extension (E); Forest Products (P); Reserve Boundaries (R).

ADMINISTRATION

GIFFORD PINCHOT, *Forester*, Brown Palace Hotel, Denver, Colo., August 3 to 5; Boise, Idaho, August 7, 8; return to Boise about August 13; return to Washington about September 7.

OVERTON W. PRICE, *Associate Forester*, Washington, D. C.

✓GEO. B. SUDWORTH, *Chief of Dendrology*, Washington, D. C.

✓THOMAS H. SHERRARD, *Chief of Forest Management*, Washington, D. C.

WILLIAM L. HALL, *Chief of Forest Extension*, Washington, D. C.

HERMANN VON SCHRENK, *Chief of Forest Products*, Missouri Botanical Gardens, St. Louis, Mo.

F. E. OLMSTED, *Chief of Section of Reserve Boundaries*. Inspection of field work in Western States.

E. T. ALLEN, *Acting Chief of Section of Reserve Boundaries*, Washington, D. C.

C. G. CRAWFORD, *Acting Chief of Forest Products, and Tabulation and Preparation of Wood Preservation Data from U. S. Census Reports and from Field*.

FIELD WORK

ALABAMA

✓(M) Working plan for tract of Emmet O'Neal in northern Alabama, in cooperation with the owner—H. W. CHITTENDEN.

ALASKA

(R) Examination of lands for forest reserves, and additions to existing forest reserves—W. A. LANGILLE, Nome, Alaska.

ARKANSAS

(P) Experiments in seasoning red and other inferior oaks—M. C. JENSEN, Black Rock, Ark.; assistant, MANASSEH SMITH, Jr.

CALIFORNIA

(F) Study of forest problems in cooperation with the State—W. C. HODGE, Jr.; headquarters, Occidental Hotel, San Francisco, Cal.; assistants, W. F. HUBBARD, E. H. HAREFORD, P. D. KELLETER, C. G. SMITH, A. R. POWERS, and A. E. COHOON.

✓(M) Study of sugar pine and western yellow pine—A. W. COOPER; assistants, W. J. WADE, R. H. ALLEN, W. L. PORTERFIELD, G. J. TRAUGOTT, B. J. TEASDALE, E. R. SECREST, and G. H. CECIL.

✓(D) Study of tanbark oak of Pacific coast—Prof. W. L. JEPSON; permanent address, Berkeley, Cal.

✓(D) Special studies of California trees, Four-leaf pine, Torrey pine, Bishop pine—Prof. W. R. DUDLEY; permanent address, Stanford University, Cal.

✓(D) Study of native and exotic acacias—Prof. A. V. Stubenrauch; permanent address, Berkeley, Cal.

(E) Cooperative planting plan for Griffith Park—G. B. LULL, Hollenbeck Hotel, Los Angeles, Cal.; assistants, H. O. STABLER, C. H. SELLERS, and T. C. ZSCHOKKE.

(E) Work on the Government nursery, San Gabriel Forest Reserve—T. P. LUKENS, Pasadena, Cal.; assistants, A. T. SEARLE and W. F. SHERFESEE.

(E) Study of chaparral, Santa Barbara Forest Reserve and Southern Sierras—L. C. MILLER, Hollenbeck Hotel, Los Angeles, Cal.; assistant, W. R. MATTOON.

(E) Study of forest reproduction, Southern Sierras—J. D. GUTHRIE, Santa Barbara, Cal.; assistant, S. J. FLINTHAM.

(E) Study of forest fires and methods of prevention, northern California, in cooperation with the State—E. A. STERLING, Occidental Hotel, San Francisco, Cal.

(P) Timber tests on red fir and western hemlock in cooperation with the University of California—Prof. L. E. HUNT, Berkeley, Cal.; assistant, ROLF THELEN.

COLORADO

(E) Establishment of forest nurseries, Pike's Peak Forest Reserve—CLYDE LEAVITT, Rosemont, Colo.; assistant, T. J. TAYLOR.

CONNECTICUT

(P) Timber tests, with special reference to the influence of moisture on strength of Southern Pines, in cooperation with Yale University—Prof. J. W. TOUMEY and H. D. TIEMANN, Yale Forest School, New Haven, Conn.; assistant, CORNELIUS BARRY.

DISTRICT OF COLUMBIA

(P) Timber tests, with special reference to rates of growth of Southern pines—H. S. BETTS; assistant, PREVOST HUBBARD.

(E) Study of germination of pine seeds, in cooperation with Seed Laboratory at Washington, D. C., and on Dismal River Reserve—J. C. BLUMER.

GEORGIA

✓(D) Improved methods of turpentine orcharding, experimental pine forests (orchards) secured by cooperation with Powell, Bullard & Co.—FRANK KLARPP, Ocilla, Ga.; assistant, S. P. WOOLFOLK.

HAWAII

(E) Examination of lands for insular forest reserves—R. S. HOSMER, Honolulu, Hawaii.

IDAHO

✓ (M) Working plan for Northern Pacific Railway Company, in cooperation with the company—A. K. CHITTENDEN, St. Maries, Kootenai County, Idaho; assistants, G. M. HOMANS and K. W. WOODWARD.

(R) Preparation of forest map of Idaho—SMITH RILEY, Kooskia, Idaho; assistants, G. E. TOWER and W. T. COX.

ILLINOIS

(E) Study of the results of forest planting, central Illinois—R. S. KELLOGG, Roodhouse, Ill.; assistants, H. M. HALE, J. M. NELSON, Jr., M. B. PRATT, F. J. PHILLIPS, and E. A. ZIEGLER.

INDIANA

(P) Timber testing at Lafayette, Ind., in cooperation with Purdue University—Dr. W. K. HATT, Lafayette, Ind.; assistant, C. H. HALL.

IOWA

(E) Study of results of forest planting and preparation of planting plans in cooperation with landowners—H. P. BAKER, Ames, Iowa.

KANSAS

(E) Preparation of planting plans in cooperation with landowners—Z. L. BLISS. (Also in Nebraska.)

KENTUCKY

✓ (M) Working plan for Hillman Land and Iron Company in western Kentucky, in cooperation with owners—A. B. PATTERSON, Eddyville, Ky.; assistants, W. H. VON BAYER, A. C. RINGLAND, J. E. BARTON, J. H. HAUSENVALD, W. J. MORRILL, T. L. HOOVER, and J. B. ANDERSON.

MAINE

✓ (M) Study of fire prevention and control, in cooperation with the State—S. N. SPRING, Orono, Me.; assistants, LOUIS MARGOLIN, E. R. HODSON, J. H. RAMSKILL, and P. T. HARRIS.

MINNESOTA

(F) Inspection of lumbering, marking of timber, and forest measurements upon lands to become the Minnesota National Forest Reserve—E. S. BRUCE, Cass Lake, Minn.; assistants, G. E. MARSHALL, W. E. LA FOUNTAIN, R. G. GIFFIN, W. R. MCKINNON, MARK BURNS, W. WALLACE, and J. S. BAIRD.

MISSOURI

(D) Louisiana Purchase Exposition, St. Louis, exhibit of Bureau of Forestry—ALFRED GASKILL, Forest, Fish, and Game Building, World's Fair, St. Louis.

(P) Study of methods of wood preservation, Louisiana Purchase Exposition, St. Louis, in cooperation with several railroads—G. E. CLEMENT, Missouri Botanical Gardens, St. Louis, Mo.; assistant, R. W. AYRES.

(P) Special timber tests, Louisiana Purchase Exposition, in cooperation with several railroads—Dr. W. K. HATT, headquarters, Purdue University, Lafayette, Ind.; assistants, H. D. HARTLEY, G. W. NOYES, and M. CLINE, Missouri Botanical Gardens, St. Louis, Mo.

(P) Chemical experiments, with special reference to wood preservation and moisture contents of wood, St. Louis—E. B. FULKS, Missouri Botanical Gardens, St. Louis, Mo.

MONTANA

✓(M) Study of western yellow pine—S. J. RECORD, Kalispell, Mont.; assistants, MAX ROTHKUGEL and J. F. BOND.

NEBRASKA

(E) Work on Government nursery, Dismal River Forest Reserve—C. A. SCOTT, Halsey, Nebr.; assistants, F. W. BESLEY, W. H. MAST, F. B. H. BROWN, E. C. CLIFFORD, H. C. NEEL, A. E. OMAN, and T. D. WOODBURY.

(E) Study of results of forest planting, eastern Nebraska—F. G. MILLER, Station A, Lincoln, Nebr.; assistants, L. M. GOODDING, W. I. HUTCHINSON, G. W. PEAVY, J. D. WARNER, and L. L. WHITE.

(E) Study of forest replacement in Nebraska—Prof. C. E. BESSEY, Lincoln, Nebr.

NEW HAMPSHIRE

✓(M) Working plan for Ansel Dickinson estate in southern New Hampshire, in cooperation with the owner—C. A. LYFORD, Ashuelot, N. H.; assistants, W. B. PIPER and A. T. BOISEN.

NEW MEXICO

(P) Seasoning and treating experiments, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—H. A. PAUL, Las Vegas, N. Mex.; assistant, FREDERICK DUNLAP.

NEW YORK

(M) Execution of working plan for U. S. Military Academy, West Point, N. Y., in cooperation with the War Department—R. L. MARSTON, permanent address, 270 Crown street, New Haven, Conn.

(P) Seasoning experiments on maple, beech, and birch cross-ties, with special reference to different methods of piling, in cooperation with New York Central Railroad—W. R. WHEATON, Utica, N. Y.

NORTH CAROLINA

(P) Seasoning experiments on juniper poles, with special reference to effect of rafting, in cooperation with American Telegraph and Telephone Co.—D. G. KINNEY, Wilmington, N. C.; assistant, J. APPLETON.

SOUTH DAKOTA

✓(M) Study of western yellow pine in South Dakota—H. M. CURRAN, Nemo, S. Dak.; assistants, J. E. KEACH, F. L. PRAY, C. L. HILL, F. M. PATTON, and E. G. CHEYNEY.

(E) Study of results of forest planting, eastern South Dakota—J. M. FETHEROLF, Sioux Falls, S. Dak.; assistants, J. P. WENTLING, H. B. HOLROYD, S. G. SMITH, O. T. SWAN, and L. VON WERNSTEDT.

(E) Inspection of field work—G. L. CLOTHIER. (Also in Illinois and Nebraska, and preparing of planting plans in Oregon.)

TEXAS

✓(M) Working plan and planting plan for New York and Texas Land and Cattle Company, in western Texas, in cooperation with the company—H. H.

CHAPMAN, Amarilla, Tex. Party from Forest Extension: J. FRED BAKER
W. B. HADLEY, and A. S. PECK.

(P) Investigation of different methods of piling and laying ties, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—FRANK TOMPKINS, Somerville, Tex.

(P) Tie-seasoning experiments, in cooperation with the Southern Pacific and Santa Fe railroads—H. J. BROWN, Silsbee, Tex.; assistant, C. E. FEAGIN.

✓(D) Study of forest conditions of the Big Thicket country—Prof. W. L. BRAY, Austin, Tex.

UTAH

(E) Study of forest reproduction preparatory to forest planting, Salt Lake Forest Reserve—A. F. HAWES, Salt Lake City, Utah; assistant, C. D. MELL.

WASHINGTON

✓(M) Working plan for Weyerhaeuser Timber Company in Washington, in cooperation with the company—C. S. CHAPMAN, care Weyerhaeuser Timber Company, Tacoma, Wash.; assistant, H. D. EVERETT.

WEST VIRGINIA

✓(M) Working plan for the United States Coal and Oil Company, in cooperation with the company—R. C. HAWLEY, Holden, W. Va.; assistants, C. H. FARNUM
A. O. WAHA, F. A. SILCOX, J. B. DUMONT, C. A. MATHEWSON, and C. J. BUCK.

WISCONSIN

(F) Study of forest conditions in cooperation with the State—E. M. GRIFFITH, Madison, Wis.; assistant, R. F. NASH.

WYOMING

✓(M) Study of lodgepole pine—P. G. REDINGTON, Moran, Wyo.

REGIONAL STUDIES

NEW ENGLAND

(E) Preparation of planting plants in cooperation with landowners (also in Ohio Valley)—S. B. DETWILER.

EASTERN STATES

(F) Location and measurements of permanent sample plots—Prof. H. S. GRAMES, Milford, Pa.; assistant, G. H. MYERS.

(P) Inspection of experiments in wood preservation—HENRY GRINNELL.

SOUTHERN APPALACHIANS

✓(M) Studies of southern hardwoods—WALTER MULFORD, in Tennessee; assistants, W. B. GREELEY, preliminary examinations in Tennessee; H. D. FOSTER, preliminary examinations in North Carolina; H. G. MERRILL, with working-plan party on tract of United States Coal and Oil Company in West Virginia; J. S. HOLMES, commercial tree study at Townsend, Tenn.; assistants, D. SKEELS, T. A. CASEY, J. R. WEIR, J. E. GOW, H. D. BURRALL, W. H. KEMPFER, J. E. LAGDAMEO.

MIDDLE WEST

✓(M) Study of second growth—R. G. ZON.

✓(M) Woodlot examinations—W. G. WEIGLE.

WESTERN STATES

(P) Seasoning and treating experiments in Washington, Wyoming, New Mexico, and Texas, in cooperation with the Northern Pacific, Southern Pacific, and Santa Fe railroads—R. P. IMES; headquarters, Missouri Botanical Gardens, St. Louis, Mo.

(P) Tie-seasoning experiments on lodgepole pine and western hemlock, Sheridan, Wyo., and Tacoma, Wash., in cooperation with Northern Pacific Railroad—H. B. EASTMAN.

(R) Examination of lands for new forest reserves, additions to existing forest reserves, and releases of reserved lands.

In Montana and Wyoming—COERT DU BOIS; assistants, ELMERS KOCH, J. H. HATTON, and W. H. B. KENT.

In Colorado, Utah, New Mexico, and Arizona—R. E. BENEDICT; assistant, R. V. R. REYNOLDS.

In Washington, Oregon, and California—H. J. TOMPKINS; assistants, R. B. WILSON and F. W. REED.

(F) Study of forest grazing—A. F. POTTER.



United States Department of Agriculture, BUREAU OF FORESTRY,

GIFFORD PINCHOT, Forester.

FIELD PROGRAMME FOR SEPTEMBER, 1904.

A schedule of field work and assignments in the Bureau of Forestry is issued monthly during the field season. The names of members whose assignments are indefinite and reference to projects for which plans have not been matured are necessarily omitted.

It is requested that the members of the Bureau cooperate in making this schedule complete and accurate. Information concerning errors or omissions, and changes of project or of address for the following month, should be sent by members to the offices of their respective chiefs not later than the 20th of the month.

Unless the address of a member is given in this schedule or is definitely known, he should be addressed in care of the Bureau of Forestry, Washington, D. C.

Work conducted under the direction of the Forester is designated (F); Dendrology (D); Forest Management (M); Forest Extension (E); Forest Products (P); Reserve Boundaries (R).

ADMINISTRATION.

GIFFORD PINCHOT, *Forester*, Great Falls, Mont., September 1; Minot, N. Dak., September 2 and 3; St. Paul, Minn., September 5; St. Louis, Mo., September 8; return to Washington September 12.

OVERTON W. PRICE, *Associate Forester*, Washington, D. C.

✓ GEO. B. SUDWORTH, *Chief of Dendrology*, Portland, Oreg., September 1 to 15; Seattle, Wash., September 16 to 30.

✓ THOMAS H. SHERRARD, *Chief of Forest Management*. Inspection of field work in Western States.

WILLIAM L. HALL, *Chief of Forest Extension*, Washington, D. C.

HERMANN VON SCHRENK, *Chief of Forest Products*, Missouri Botanical Gardens, St. Louis, Mo.

HENRY GRINNELL, *Acting Chief of Forest Products*, Washington, D. C.

F. E. OLMSTED, *Chief of Section of Reserve Boundaries*. Inspection of field work in California; return to Washington September 10.

E. T. ALLEN, *Acting Chief of Section of Reserve Boundaries*, Washington, D. C., until September 10; inspection of field work in Washington, to September 30.

FIELD WORK.

ALASKA.

(R) Examination of lands for forest reserves, and additions to existing forest reserves—W. A. LANGILLE, Nome, Alaska.

ARKANSAS.

(P) Experiments in seasoning red and other inferior oaks, in cooperation with Frisco system—MANASSEH SMITH, Jr., Black Rock, Ark.

CALIFORNIA.

(F) Study of forest problems in cooperation with the State—W. C. HODGE, Jr.; headquarters, Occidental Hotel, San Francisco, Cal.; assistants, W. F. HUBBARD, P. D. KELLETER, C. G. SMITH, A. R. POWERS, and A. E. COHOON.

✓ (M) Study of sugar pine and western yellow pine—A. W. COOPER, Occidental Hotel, San Francisco, Cal.; assistants, W. J. WADE, R. H. ALLEN, W. L. PORTERFIELD, G. J. TRAUGOTT, B. J. TEASDALE, E. R. SECREST, and G. H. CECIL.

✓ (D) Study of tanbark oak of Pacific coast—Prof. W. L. JEPSON; permanent address, Berkeley, Cal.

✓ (D) Special studies of California trees, Four-leaf pine, Torrey pine, Bishop pine—Prof. W. R. DUDLEY; permanent address, Stanford University, Cal.

✓ (D) Study of native and exotic acacias—Prof. A. V. STUBENRAUCH; permanent address, Berkeley, Cal.

(E) Cooperative planting plan for Griffith Park—G. B. LULL, Hollenbeck Hotel, Los Angeles, Cal.; assistants, H. O. STABLER, C. H. SELLERS, and T. C. ZSCHOKKE.

(E) Work on the Government nursery, San Gabriel Forest Reserve—T. P. LUKENS, Pasadena, Cal.; assistants, A. T. SEARLE and W. F. SHERFESEE.

(E) Study of chaparral, Santa Barbara Forest Reserve, southern Sierras, and northern California—L. C. MILLER, Hollenbeck Hotel, Los Angeles, Cal.; assistant, W. R. MATTOON.

(E) Study of forest reproduction, southern Sierras—S. J. FLINTHAM, Fresno, Cal.

(E) Study of forest fires and methods of prevention, northern California, in cooperation with the State—E. A. STERLING, Occidental Hotel, San Francisco, Cal.

(P) Timber tests on red fir and western hemlock in cooperation with the University of California—Prof. L. E. HUNT, Berkeley, Cal.; assistant, ROLF THELEN.

COLORADO.

(E) Establishment of forest nurseries, Pike's Peak Forest Reserve—CLYDE LEAVITT, Rosemont, Colo.; assistant, T. J. TAYLOR.

CONNECTICUT.

(P) Timber tests, with special reference to the influence of moisture on strength of Southern pines, in cooperation with Yale University—Prof. J. W. TOUMEY and H. D. TIEMANN, Yale Forest School, New Haven, Conn.; assistant, CORNELIUS BARRY.

DISTRICT OF COLUMBIA.

(P) Timber tests, with special reference to rates of growth of Southern pines—H. S. BETTS; assistant, PREVOST HUBBARD.

(P) Tabulation and preparation of wood preservation data from field—C. G. CRAWFORD. (Also experiments in classifying, piling, and seasoning loblolly pine cross arms, in Maryland and Virginia.)

(E) Study of germination of pine seeds, in cooperation with Seed Laboratory at Washington, D. C., and on Dismal River Reserve—J. C. BLUMER.

GEORGIA.

- ✓ (D) Improved methods of turpentine orcharding, experimental pine forests (orchards) secured by cooperation with Powell, Bullard & Co.—FRANK KLARPP, Ocilla, Ga.; assistant, S. P. WOOLFOLK.

HAWAII.

- (E) Examination of lands for insular forest reserves—R. S. HOSMER, Honolulu, Hawaii.

IDAHO.

- ✓ (M) Working plan for Northern Pacific Railway Company, in cooperation with the company—A. K. CHITTENDEN, St. Maries, Kootenai County, Idaho; assistants, G. M. HOMANS and K. W. WOODWARD.

- (R) Preparation of forest map of Idaho—SMITH RILEY, Wallace, Idaho; assistants, G. E. TOWER and W. T. COX.

ILLINOIS.

- (E) Study of the results of forest planting, central Illinois—R. S. KELLOGG, Roodhouse, Ill.; assistants, H. M. HALE, J. M. NELSON, Jr., M. B. PRATT, F. J. PHILLIPS, and E. A. ZEIGLER.

INDIANA.

- (P) Timber testing at Lafayette, Ind., in cooperation with Purdue University—Dr. W. K. HATT, Lafayette, Ind.; assistant, C. H. HALL.

IOWA.

- (E) Furloughed August 31 to become instructor in forestry at Iowa Agricultural College—H. P. BAKER, Ames, Iowa.

KENTUCKY.

- ✓ (M) Working plan for Hillman Land and Iron Company in western Kentucky, in cooperation with owners—A. B. PATTERSON, Eddyville, Ky.; assistants, W. H. VON BAYER, A. C. RINGLAND, J. E. BARTON, J. H. HAUSENVALD, W. J. MORRILL, T. L. HOOVER, and J. B. ANDERSON.

MAINE.

- ✓ (M) Study of fire prevention and control, in cooperation with the State—S. N. SPRING, Orono, Me.; assistants, LOUIS MARGOLIN, E. R. HODSON, J. H. RAMSKILL, and P. T. HARRIS.

MINNESOTA.

- (F) Inspection of lumbering, marking of timber, and forest measurements upon lands to become the Minnesota National Forest Reserve—E. S. BRUCE, Cass Lake, Minn.; assistants, G. E. MARSHALL, W. E. LA FOUNTAIN, R. G. GIFFIN, GEO. FARLEY, W. R. MCKINNON, MARK BURNS, and J. S. BAIRD.

MISSISSIPPI.

- (P) Experiments in seasoning loblolly pine, red gum, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Ackerman, Miss.

MISSOURI.

- (D) Louisiana Purchase Exposition, St. Louis, exhibit of Bureau of Forestry—ALFRED GASKILL, Forest, Fish, and Game Building, World's Fair, St. Louis.

(P) Study of methods of wood preservation, Louisiana Purchase Exposition, St. Louis, in cooperation with several railroads—G. E. CLEMENT, Missouri Botanical Gardens, St. Louis, Mo.; assistants, R. W. AYRES and G. W. NOYES.

(P) Special timber tests, Louisiana Purchase Exposition, in cooperation with several railroads—Dr. W. K. HATT, headquarters, Purdue University, Lafayette, Ind.; assistants, H. D. HARTLEY, G. W. NOYES, and M. CLINE, Missouri Botanical Gardens, St. Louis, Mo.

(P) Chemical experiments, with special reference to wood preservation and moisture contents of wood, St. Louis—E. B. FULKS, Missouri Botanical Gardens, St. Louis, Mo.

MONTANA.

(M) Study of western yellow pine—S. J. RECORD, Kalispell, Mont.; assistants, MAX ROTHKUGEL and J. F. BOND.

NEBRASKA.

(E) Work on Government nursery, Dismal River Forest Reserve—C. A. SCOTT, Halsey, Nebr.; assistants, F. W. BESLEY, W. H. MAST, F. B. H. BROWN, E. C. CLIFFORD, H. C. NEEL, A. E. OMAN, and T. D. WOODBURY.

(E) Study of results of forest planting, eastern Nebraska—F. G. MILLER, Station A, Lincoln, Nebr.; assistants, L. M. GOODDING, W. I. HUTCHINSON, G. W. PEAVY, J. D. WARNER, and L. L. WHITE.

(E) Study of forest replacement in Nebraska—Prof. C. E. BESSEY, Lincoln, Nebr.

NEW HAMPSHIRE.

(M) Working plan for Ansel Dickinson estate in southern New Hampshire, in cooperation with the owner—C. A. LYFORD, Ashuelot, N. H.; assistants, W. B. PIPER and A. T. BOISEN.

NEW MEXICO.

(P) Seasoning and treating experiments, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—H. A. PAUL, Las Vegas, N. Mex.; assistant, FREDERICK DUNLAP.

NEW YORK.

(M) Execution of working plan for U. S. Military Academy, West Point, N. Y., in cooperation with the War Department—R. L. MARSTON, permanent address, 270 Crown street, New Haven, Conn.

(P) Seasoning experiments on maple, beech, and birch cross-ties, with special reference to different methods of piling, in cooperation with New York Central Railroad—W. R. WHEATON, Utica, N. Y.

NORTH CAROLINA.

(P) Seasoning experiments on juniper poles, with special reference to effect of rafting, in cooperation with American Telegraph and Telephone Company—J. APPLETON, Wilmington, N. C.

OREGON.

(E) Preparation of planting plans, in cooperation with landowners—G. L. CLOTHIER, Oregon City, Oreg.

SOUTH DAKOTA.

(E) Study of results of forest planting, eastern South Dakota—J. M. FETHEROLF, Sioux Falls, S. Dak.; assistants, J. P. WENTLING, H. B. HOLROYD, S. G. SMITH, O. T. SWAN, and L. VON WERNSTEDT.

(E) Preparation of planting plans, in cooperation with landowners—Z. L. BLISS, Yankton, S. Dak.

TENNESSEE.

(P) Experiments in seasoning beech, loblolly pine, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Trimble, Tenn.

(P) Experiments in seasoning telephone poles, in cooperation with several telephone and telegraph companies—J. APPLETON, care of Chattanooga Pole Company, Chattanooga, Tenn.

TEXAS.

✓ (M and E) Working plan and planting plan for New York and Texas Land and Cattle Company, in western Texas, in cooperation with the company—H. H. CHAPMAN, Amarilla, Tex. Party from Forest Extension: J. FRED BAKER, W. B. HADLEY, and A. S. PECK.

(P) Investigation of different methods of piling and laying ties, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—FRANK TOMPKINS, Somerville, Tex.

(P) Tie-seasoning experiments, in cooperation with the Southern Pacific and Santa Fe railroads—H. J. BROWN, Silsbee, Tex.; assistant, C. E. FEAGIN.

✓ (D) Study of forest conditions of the Big Thicket country—Prof. W. L. BRAY, Austin, Tex.

WASHINGTON.

✓ (M) Working plan for Weyerhaeuser Timber Company in Washington, in cooperation with the company—C. S. CHAPMAN, care Weyerhaeuser Timber Company, Tacoma, Wash.; assistant, H. D. EVERETT.

WEST VIRGINIA.

✓ (M) Working plan for the United States Coal and Oil Company, in cooperation with the company—R. C. HAWLEY, Holden, W. Va.; assistants, A. O. WAHA, F. A. SILCOX, J. B. DUMONT, C. A. MATHEWSON, and C. J. BUCK.

WISCONSIN.

(F) Study of forest conditions in cooperation with the State—E. M. GRIFFITH, Madison, Wis.; assistant, R. F. NASH.

(P) Experiments in seasoning and rafting cedar and tamarack telephone poles, in cooperation with the State and with the American Telephone and Telegraph Company and the Postal Telegraph-Cable Company—D. G. KINNEY, Hotel Marinette, Marinette, Wis.

WYOMING.

✓ (M) Study of lodgepole pine—P. G. REDINGTON, Moran, Wyo.

REGIONAL STUDIES.

EASTERN STATES.

(F) Location and measurements of permanent sample plots—Prof. H. S. GRAVES, Milford, Pa.; assistant, G. H. MYERS.

SOUTHERN APPALACHIANS.

✓ (M) Studies of southern hardwoods—WALTER MULFORD, in Tennessee; assistants, W. B. GREELEY, preliminary examinations in Tennessee; H. D. FOSTER, preliminary examinations in North Carolina; H. G. MERRILL, with working-plan party on tract of United States Coal and Oil Company in West Virginia;

J. S. HOLMES, commercial tree study at Townsend, Tenn.; assistants, D. SKEELS, T. A. CASEY, J. R. WEIR, J. E. GOW, H. D. BURRALL, W. H. KEMPFER, J. E. LAGDAMEO.

MIDDLE WEST.

✓ (M) Study of second growth—R. G. ZON, Vise, Tenn.

✓ (M) Woodlot examinations—W. G. WEIGLE, Box 161, Marion, Ohio.

(E) Preparation of planting plants in cooperation with landowners—S. B. DETWILER. (Address after September 10, St. Anthony Park, Minn.)

WESTERN STATES.

(P) Seasoning and treating experiments in Washington, Wyoming, New Mexico, and Texas, in cooperation with the Northern Pacific, Southern Pacific, and Santa Fe railroads—R. P. IMES; headquarters, Missouri Botanical Gardens, St. Louis, Mo.

(P) Tie-seasoning experiments on lodgepole pine and western hemlock, Sheridan, Wyo., and Tacoma, Wash., in cooperation with Northern Pacific Railroad—H. B. EASTMAN, Sand Point, Idaho.

✓ (M) Study of western yellow pine in Colorado, Arizona, and New Mexico—H. M. CURRAN, Durango, Colo.; assistants, J. E. KEACH, F. L. PRAY, F. M. PATTON, and E. G. CHEYNEY.

(R) Examination of lands for new forest reserves, additions to existing forest reserves, and releases of reserved lands.

In Montana and Wyoming—COERT DU BOIS, Missoula, Mont.; assistants, ELMERS KOCH, Boseman, Mont.; E. H. HAREFORD and J. H. HATTON, Missoula, Mont.

In Colorado, Utah, New Mexico, and Arizona—R. E. BENEDICT, Greenwood Springs, Colo.; assistant, R. V. R. REYNOLDS, Grand Junction, Colo.

In Washington, Oregon, and California—H. J. TOMPKINS, Tacoma, Wash.; assistants, R. B. WILSON, 631 Hoyt street, Portland, Oreg., and F. W. REED, Hoquiam, Wash.

(F) Study of forest grazing—A. F. POTTER, Helena, Mont., September 1; Salt Lake City, Utah, September 15; Denver, Colo., September 25 to October 5; return to Washington about October 15.

With deep regret, announcement is made of the death of Mr. Caleb H. Farnum, a Forest Assistant in this Bureau, August 17, at Holden, W. Va. Interment was at Providence, R. I., August 20.

United States Department of Agriculture,

BUREAU OF FORESTRY,

GIFFORD PINCHOT, Forester.

FIELD PROGRAMME FOR OCTOBER, 1904.

A schedule of field work and assignments in the Bureau of Forestry is issued monthly during the field season. The names of members whose assignments are indefinite and reference to projects for which plans have not been matured are necessarily omitted.

It is requested that the members of the Bureau cooperate in making this schedule complete and accurate. Information concerning errors or omissions, and changes of project or of address for the following month, should be sent by members to the offices of their respective chiefs not later than the 20th of the month.

Unless the address of a member is given in this schedule or is definitely known, he should be addressed in care of the Bureau of Forestry, Washington, D. C.

Work conducted under the direction of the Forester is designated (F); Dendrology (D); Forest Management (M); Forest Extension (E); Forest Products (P); Reserve Boundaries (R).

ADMINISTRATION.

GIFFORD PINCHOT, *Forester.*

OVERTON W. PRICE, *Associate Forester.*

GEO. B. SUDWORTH, *Chief of Dendrology.*

THOMAS H. SHERRARD, *Chief of Forest Management.*

WILLIAM L. HALL, *Chief of Forest Extension.*

HERMANN VON SCHRENK, *Chief of Forest Products.*

F. E. OLMSTED, *Chief of Section of Reserve Boundaries.*

FIELD WORK.

ALASKA.

(R) Examination of lands for forest reserves, and additions to existing forest reserves—W. A. LANGILLE, Valdez, Alaska.

ARKANSAS.

(P) Experiments in seasoning red and other inferior oaks, in cooperation with Frisco system—MANASSEH SMITH, Jr., Black Rock, Ark.

CALIFORNIA.

(F) Study of forest problems in cooperation with the State—W. C. HODGE, Jr.; headquarters, Occidental Hotel, San Francisco, Cal.; assistants, W. F. HUBBARD, P. D. KELLETER, C. G. SMITH, A. R. POWERS, and A. E. COHOON.

(M) Study of sugar pine and western yellow pine—A. W. COOPER, Occidental

Hotel, San Francisco, Cal., until October 15; assistants, W. J. WARD, R. H. ALLEN, G. J. TRAUGOTT, E. R. SECREST, and G. H. CECIL.

(D) Study of tanbark oak of Pacific coast—Prof. W. L. JEPSON; permanent address, Berkeley, Cal.

(D) Special studies of California trees, four-leaf pine, Torrey pine, Bishop pine—Prof. W. R. DUDLEY; permanent address, Stanford University, Cal.

(D) Study of native and exotic acacias—Prof. A. V. STUBENRAUCH; permanent address, Berkeley, Cal.

(E) Cooperative planting plan for Griffith Park—G. B. LULL, Lillie Hotel, Los Angeles, Cal.; assistant, C. H. SELLERS.

(E) Work on the Government nursery, San Gabriel Forest Reserve—T. P. LUKENS, Pasadena, Cal.; assistant, A. T. SEARLE.

(E) Study of chaparral, Santa Barbara Forest Reserve, southern Sierras, and northern California—L. C. MILLER, Occidental Hotel, San Francisco, Cal.; assistant, W. R. MATTOON.

(E) Study of forest reproduction, southern Sierras—S. J. FLINTHAM, Fresno, Cal.

(E) Study of forest fires and methods of prevention, northern California, in cooperation with the State—E. A. STERLING, Occidental Hotel, San Francisco, Cal.

(P) Timber tests on red fir and western hemlock in cooperation with the University of California—Prof. L. E. HUNT, Berkeley, Cal.; assistant, ROLF THELEN.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—H. J. TOMPKINS, headquarters, Tacoma, Wash.

COLORADO.

(E) Establishment of forest nurseries, Pike's Peak Forest Reserve—CLYDE LEAVITT, Rosemont, Colo.; assistant, T. J. TAYLOR.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—R. E. BENEDICT, Glenwood Springs, Colo.; R. V. R. REYNOLDS, Grand Junction, Colo.

CONNECTICUT.

(P) Timber tests, with special reference to the influence of moisture on strength of Southern pines, in cooperation with Yale University—Prof. J. W. TOUMEY and H. D. TIEMANN, Yale Forest School, New Haven, Conn.; assistant, CORNELIUS BARRY.

DISTRICT OF COLUMBIA.

(P) Preparation of report, and Acting Chief of Forest Products—HENRY GRINNELL.

(P) Timber tests, with special reference to rates of growth of Southern pines—H. S. BETTS; assistant, PREVOST HUBBARD.

(P) Tabulation and preparation of wood preservation data from field—C. G. CRAWFORD. (Also experiments in classifying, piling, and seasoning loblolly pine cross arms, in Maryland and Virginia.)

GEORGIA.

(D) Improved methods of turpentine orcharding, experimental pine forests (orchards) secured by cooperation with Powell, Bullard & Co.—FRANK KLARPP, Ocilla, Ga.; assistant, S. P. WOOLFOLK.

HAWAII.

(E) Examination of lands for insular forest reserves—R. S. HOSMER, Honolulu, Hawaii.

IDAHO.

(R) Preparation of forest map of Idaho—SMITH RILEY, Wallace, Idaho; assistant, G. E. TOWER, Clayton, Idaho.

ILLINOIS.

(E) Study of the results of forest planting, central Illinois—R. S. KELLOGG, Roodhouse, Ill.; assistant, F. J. PHILLIPS.

INDIANA.

(P) Timber testing at Lafayette, Ind., in cooperation with Purdue University—Dr. W. K. HATT, Lafayette, Ind.; assistant, C. H. HALL.

KENTUCKY.

(M) Working plan for Hillman Land and Iron Company in western Kentucky, in cooperation with owners—A. B. PATTERSON, Kuttawa, Ky.; assistants, W. H. VON BAYER, A. C. RINGLAND, J. E. BARTON, J. H. HAUSENVALD, W. J. MORRILL, T. L. HOOVER, and J. B. ANDERSON.

MAINE.

(M) Study of fire prevention and control, in cooperation with the State—S. N. SPRING, Orono, Me.

MINNESOTA.

(F) Inspection of lumbering, marking of timber, and forest measurements upon lands to become the Minnesota National Forest Reserve—G. E. MARSHALL, Cass Lake, Minn.; assistants, W. E. LA FOUNTAIN, R. G. GIFFIN, GEO. FARLEY, W. R. MCKINNON, MARK BURNS, and J. S. BAIRD.

MISSISSIPPI.

(P) Experiments in seasoning loblolly pine, red gum, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Ackerman, Miss.

MISSOURI.

(D) Louisiana Purchase Exposition, St. Louis, exhibit of Bureau of Forestry—ALFRED GASKILL, Forest, Fish, and Game Building, World's Fair, St. Louis.

(P) Study of methods of wood preservation, Louisiana Purchase Exposition, St. Louis, in cooperation with several railroads—G. E. CLEMENT, Missouri Botanical Gardens, St. Louis, Mo.; assistants, R. W. AYRES and G. W. NOYES.

(P) Special timber tests, Louisiana Purchase Exposition, in cooperation with several railroads—Dr. W. K. HATT, headquarters, Purdue University, Lafayette, Ind.; assistants, H. D. HARTLEY, G. W. NOYES, and M. CLINE, Missouri Botanical Gardens, St. Louis, Mo.

(P) Chemical experiments, with special reference to wood preservation and moisture contents of wood, St. Louis—E. B. FULKS, Missouri Botanical Gardens, St. Louis, Mo.

MONTANA.

(M) Study of western yellow pine—S. J. RECORD, Missoula, Mont.; assistants, MAX ROTHKUGEL and J. F. BOND.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—

COERT DUBOIS, Missoula, Mont.; E. H. HAREFORD, Dillon, Mont.; JOHN H. HATTON, Helena, Mont.; ELMERS KOCH, Bozeman, Mont., about October 20.

(M) Study of lodgepole pine—P. G. REDINGTON, Cook City, Mont.

NEBRASKA.

(E) Work on Government nursery, Dismal River Forest Reserve—F. W. BESLEY, Halsey, Nebr.; assistants, F. B. H. BROWN and E. C. CLIFFORD.

(E) Study of results of forest planting, eastern Nebraska—W. I. HUTCHINSON, Station A, Lincoln, Nebr.; assistants, L. M. GOODDING and G. W. PEAVY.

(E) Study of forest replacement in Nebraska—Prof. C. E. BESSEY, Lincoln, Nebr.

(E) Furloughed September 30 to become instructor in forestry at the University of Nebraska—F. G. MILLER, Lincoln, Nebr.

NEW HAMPSHIRE.

(M) Preliminary examinations of lands in southern New Hampshire, in cooperation with landowners—C. A. LYFORD, Cheshire House, Keene, N. H.

NEW MEXICO.

(P) Seasoning and treating experiments, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—H. A. PAUL, Las Vegas, N. Mex.; assistant, FREDERICK DUNLAP.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—R. E. BENEDICT, headquarters, Glenwood Springs, Colo.; R. V. R. REYNOLDS, headquarters, Grand Junction, Colo.; S. J. HOLSINGER, Flagstaff, Ariz.

NEW YORK.

(M) Execution of working plan for U. S. Military Academy, West Point, N. Y., in cooperation with the War Department—R. L. MARSTON, permanent address, 270 Crown street, New Haven, Conn.

(P) Seasoning experiments on maple, beech, and birch cross-ties, with special reference to different methods of piling, in cooperation with New York Central Railroad—W. R. WHEATON, Utica, N. Y.

NORTH CAROLINA.

(P) Seasoning experiments on juniper poles, with special reference to effect of rafting, in cooperation with American Telegraph and Telephone Company—J. APPLETON, Wilmington, N. C. (Also, seasoning experiments on chestnut poles, at Hominy, N. C.)

OREGON.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing reserves—H. J. TOMPKINS, headquarters, Tacoma, Wash.; R. B. WILSON, 631 Hoyt St., Portland, Oreg.; F. W. REED, headquarters, Spokane, Wash.

SOUTH DAKOTA.

(E) Study of results of forest planting, eastern South Dakota—J. M. FETHEROLF, Sioux Falls, S. Dak.; assistant, O. T. SWAN.

TENNESSEE.

(P) Experiments in seasoning beech, loblolly pine, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Trimble, Tenn.

TEXAS.

(M) Working plan for New York and Texas Land and Cattle Company, in western Texas, in cooperation with the company—H. H. CHAPMAN, Amarilla, Tex.

(P) Investigation of different methods of piling and laying ties, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—FRANK TOMPKINS, Somerville, Tex.

(P) Tie-seasoning experiments, in cooperation with the Southern Pacific and Santa Fe railroads—H. J. BROWN, Silsbee, Tex.; assistant, C. E. FEAGIN.

(D) Study of forest conditions of the Big Thicket country—Prof. W. L. BRAY, Austin, Tex.

WASHINGTON.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—H. J. TOMPKINS, Tacoma, Wash.; R. B. WILSON, headquarters, 631 Hoyt street, Portland, Oreg.; F. W. REED, Spokane, Wash.

(R) Inspection of field work in Washington—E. T. ALLEN, Ashford, Wash.

WEST VIRGINIA.

(M) Working plan for the United States Coal and Oil Company, in cooperation with the company—R. C. HAWLEY, Holden, W. Va.

(M) Study of production of lumber grades from important southern hardwoods—E. A. BRANIFF, Panther, W. Va., after October 15; assistants, H. D. EVERETT, LOUIS MARGOLIN, W. J. WARD, R. H. ALLEN, G. J. TRAUGOTT, E. R. SECREST, and G. H. CECIL.

WISCONSIN.

(F) Study of forest conditions in cooperation with the State—E. M. GRIFFITH, Madison, Wis.; assistant, R. F. NASH.

(P) Experiments in seasoning and rafting cedar and tamarack telephone poles, in cooperation with the State and with several telegraph, telephone, and railroad companies—D. G. KINNEY, Hotel Marinette, Marinette, Wis.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—ELERS KOCH, Sheridan, Wyo.

REGIONAL STUDIES.

EASTERN STATES.

(F) Location and measurements of permanent sample plots—Prof. H. S. GRAVES, Yale Forest School, New Haven, Conn.; assistant, G. H. MYERS.

SOUTHERN APPALACHIANS.

(M) Studies of southern hardwoods—WALTER MULFORD, in Tennessee; assistants, W. B. GREELEY, preliminary examinations in Tennessee; H. D. FOSTER, preliminary examinations in North Carolina; H. G. MERRILL, preliminary examinations in West Virginia; RAPHAEL ZON, commercial tree study at Vise, Tenn.; assistants, D. SKEELS, J. E. GOW, H. D. BURRALL, and W. H. KEMPFER.

SOUTHERN STATES.

(M) Preliminary examinations of lands in Arkansas and Missouri, in cooperation with landowners—C. S. CHAPMAN.

SOUTHWESTERN STATES.

(E) Preparation of planting plans in New Mexico and Texas, in cooperation with landowners—G. L. CLOTHIER, Bayard, N. Mex., about October 15.

MIDDLE WEST.

(M) Woodlot examinations, in cooperation with landowners—W. G. WEIGLE, Box 161, Marion, Ohio.

WESTERN STATES.

(P) Seasoning and treating experiments in Washington, Wyoming, New Mexico, and Texas, in cooperation with the Northern Pacific, Southern Pacific, and Santa Fe railroads—R. P. IMES; headquarters, Missouri Botanical Gardens, St. Louis, Mo.

(P) Tie-seasoning experiments on lodgepole pine and western hemlock, Sheridan, Wyo., Tacoma, Wash., and Pasco, Wash., in cooperation with Northern Pacific Railroad—H. B. EASTMAN, 720 Fifth avenue, Spokane, Wash.

(M) Study of western yellow pine in Colorado, Arizona, and New Mexico—H. M. CURRAN, Durango, Colo.; assistants, J. E. KEACH, F. L. PRAY, F. M. PATTON, and E. G. CHEYNEY.

(F) Study of forest grazing—A. F. POTTER, Box 1402, Denver, Colo., October 5; return to Washington about October 31.

United States Department of Agriculture,

BUREAU OF FORESTRY,

GIFFORD PINCHOT, Forester.

FIELD PROGRAMME FOR NOVEMBER, 1904.

A schedule of field work and assignments in the Bureau of Forestry is issued monthly during the field season. The names of members whose assignments are indefinite and reference to projects for which plans have not been matured are necessarily omitted.

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OVERTON W. PRICE, *Associate Forester.*

GEO. B. SUDWORTH, *Chief of Dendrology.*

THOMAS H. SHERRARD, *Chief of Forest Management.*

WILLIAM L. HALL, *Chief of Forest Extension.*

HERMANN VON SCHRENK, *Chief of Forest Products.*

F. E. OLMSTED, *Chief of Section of Reserve Boundaries.*

JAMES B. ADAMS, *Chief of Records.*

FIELD WORK.

ALASKA.

(R) Examination of lands for forest reserves, and additions to existing forest reserves—W. A. LANGILLE, Valdez, Alaska.

ARKANSAS.

(P) Experiments in seasoning red and other inferior oaks, in cooperation with Frisco system—MANASSEH SMITH, Jr., Black Rock, Ark.

CALIFORNIA.

(F) Study of forest problems in cooperation with the State—W. C. HODGE, Jr.; headquarters, Occidental Hotel, San Francisco, Cal.; assistants, W. F. HUBBARD, P. D. KELLETER, C. G. SMITH, A. R. POWERS, and A. E. COHOON.

(M) Study of sugar pine and western yellow pine—A. W. COOPER, Occidental Hotel, San Francisco, Cal.; assistant, W. J. WARD.

(D) Study of tanbark oak of Pacific coast—Prof. W. L. JEPSON; permanent address, Berkeley, Cal.

(D) Special studies of California trees, four-leaf pine, Torrey pine, Bishop pine—Prof. W. R. DUDLEY; permanent address, Stanford University, Cal.

(D) Study of native and exotic acacias—Prof. A. V. STUBENRAUCH; permanent address, Berkeley, Cal.

(E) Work on the Government nursery, San Gabriel Forest Reserve—T. P. LUKENS, Pasadena, Cal.; assistant, A. T. SEARLE.

(E) Study of chaparral, southern Sierras and northern California—L. C. MILLER, Occidental Hotel, San Francisco, Cal.; assistant, W. R. MATTOON.

(E) Study of forest reproduction, southern Sierras—S. J. FLINTHAM, Visalia, Cal.; assistant, W. B. Hadley.

(E) Study of forest fires and methods of prevention, northern California, in cooperation with the State—E. A. STERLING, Occidental Hotel, San Francisco, Cal.

(P) Timber tests on red fir and western hemlock in cooperation with the University of California—Prof. L. E. HUNT, Berkeley, Cal.; assistant, ROLF THELEN.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—H. J. TOMPKINS, headquarters, Tacoma, Wash.

COLORADO.

(M) Study of western yellow pine—H. M. CURRAN, Pagosa Junction, Colo.; assistants, J. E. KEACH, F. L. PRAY, and F. M. PATTON.

(R) Examination of State lands, in cooperation with the State—CLYDE LEAVITT, Denver, Colo.

CONNECTICUT.

(P) Timber tests, with special reference to the influence of moisture on strength of southern pines, chestnut, and red spruce, in cooperation with Yale University—Prof. J. W. TOUMEY and H. D. TIEMANN, Yale Forest School, New Haven, Conn.; assistant, CORNELIUS BARRY.

DISTRICT OF COLUMBIA.

(P) Preparation of report, and Acting Chief of Forest Products—HENRY GRINNELL.

(P) Timber tests, with special reference to rates of growth of Southern pines—H. S. BETTS; assistant, PREVOST HUBBARD.

(P) Tabulation and preparation of wood preservation data from field—C. G. CRAWFORD. (Also experiments in classifying, piling, and seasoning loblolly pine cross arms, in Maryland and Virginia.)

GEORGIA.

(D) Improved methods of turpentine orcharding, experimental pine forests (orchards) secured by cooperation with Powell, Bullard & Co.—FRANK KLARPP, Ocilla, Ga.; assistant, S. P. WOOLFOLK.

HAWAII.

(E) Examination of lands for insular forest reserves—R. S. HOSMER, Honolulu, Hawaii.

IDAHO.

(R) Preparation of forest map of Idaho—SMITH RILEY, Albion, Idaho; assistant, G. E. TOWER, Boise, Idaho.

INDIANA.

(P) Timber testing at Lafayette, Ind., in cooperation with Purdue University—Dr. W. K. HATT, Lafayette, Ind.; assistant, C. H. HALL.

KENTUCKY.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. D. MERRILL, Lombard, Ky.; assistant, W. H. KEMPFER; A. B. PATTERSON, Kuttawa, Ky.; assistant, H. D. BURRALL.

MICHIGAN.

(P) Experiments in seasoning and rafting cedar and tamarack telephone poles, in cooperation with the State and with several telegraph, telephone, and railroad companies—D. G. KINNEY, New Ludington Hotel, Escanaba, Mich.

MINNESOTA.

(F) Inspection of lumbering, marking of timber, and forest measurements upon lands to become the Minnesota National Forest Reserve—G. E. MARSHALL, Cass Lake, Minn.; assistants, W. E. LA FOUNTAIN, R. G. GIFFIN, GEO. FARLEY, W. R. MCKINNON, MARK BURNS, and J. S. BAIRD.

MISSISSIPPI.

(P) Experiments in seasoning loblolly pine, red gum, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Ackerman, Miss.

MISSOURI.

(D) Louisiana Purchase Exposition, St. Louis, exhibit of Bureau of Forestry—ALFRED GASKILL, Forest, Fish, and Game Building, World's Fair, St. Louis.

(P) Study of methods of wood preservation, Louisiana Purchase Exposition, St. Louis, in cooperation with several railroads—G. E. CLEMENT, Missouri Botanical Gardens, St. Louis, Mo.; assistants, R. W. AYRES and G. W. NOYES.

(P) Special timber tests, Louisiana Purchase Exposition, in cooperation with several railroads—Dr. W. K. HATT, headquarters, Purdue University, Lafayette, Ind.; assistants, H. D. HARTLEY, M. CLINE, O. P. M. GOSS, and W. L. BRIDGES, Missouri Botanical Gardens, St. Louis, Mo.

(P) Chemical experiments, with special reference to wood preservation, moisture content of wood, and the determination of the constituents of creosote oil—E. B. FULKS, Missouri Botanical Gardens, St. Louis, Mo.

MONTANA.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—COERT DUBOIS, Missoula, Mont.; E. H. HAREFORD, Divide, Mont.; JOHN H. HATTON, Helena, Mont.; ELMERS KOCH, Bozeman, Mont.

(M) Study of lodgepole pine—P. G. REDINGTON, Cook City, Mont.

NEBRASKA.

(E) Work on Government nursery, Dismal River Forest Reserve—F. W. BESLEY, Halsey, Nebr.

(E) Study of forest replacement in Nebraska—Prof. C. E. BESSEY, Lincoln, Nebr.

NEW HAMPSHIRE.

(M) Preliminary examinations of lands in southern New Hampshire, in cooperation with landowners—C. A. LYFORD, Cheshire House, Keene, N. H.

NEW MEXICO.

(P) Seasoning and treating experiments, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—H. A. PAUL, Las Vegas, N. Mex.; assistant, FREDERICK DUNLAP.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—R. E. BENEDICT, Santa Fe, N. Mex.; R. V. R. REYNOLDS, headquarters, Panguitch, Utah; S. J. HOLSINGER, headquarters, Tucson, Ariz.

NEW YORK.

(M) Execution of working plan for U. S. Military Academy, West Point, N. Y., in cooperation with the War Department—R. L. MARSTON, permanent address, 270 Crown street, New Haven, Conn.

(P) Seasoning experiments on maple, beech, and birch cross-ties, with special reference to different methods of piling, in cooperation with New York Central Railroad—W. R. WHEATON, Utica, N. Y.

(M) Woodlot examinations, in cooperation with landowners—R. G. ZON.

NORTH CAROLINA.

(P) Seasoning experiments on chestnut poles, in cooperation with American Telegraph and Telephone Company—J. APPLETON, Asheville, N. C.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. D. FOSTER, Eberman, McDowell County, N. C.; assistant, DORR SKEELS.

OREGON.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing reserves—H. J. TOMPKINS, headquarters, Tacoma, Wash.; R. B. WILSON, 631 Hoyt St., Portland, Oreg.; F. W. REED, headquarters, Nespelem, Wash.

PENNSYLVANIA.

(P) Seasoning experiments on chestnut poles, with special reference to effect of rafting, in cooperation with the Postal Telegraph-Cable Company—JOHN APPLETON, Hotel Taylor, Coatesville, Pa.

TENNESSEE.

(P) Experiments in seasoning beech, loblolly pine, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Trimble, Tenn.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—W. B. GREELEY, Hartranft, Claiborne County, Tenn.; assistant, J. H. HANSEVALD.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. W. CHITTENDEN, Bear Spring, Stewart County, Tenn.

TEXAS.

(P) Investigation of different methods of piling and laying ties, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—FRANK TOMPKINS, Somerville, Tex.

(P) Tie-seasoning experiments, in cooperation with the Southern Pacific and Santa Fe railroads—H. J. BROWN, Silsbee, Tex.; assistant, C. E. FEAGIN.

(D) Study of forest conditions of the Big Thicket country—Prof. W. L. BRAY, Austin, Tex.

UTAH.

(R) Examination of lands for new forest reserves, and releases from temporary withdrawals—R. V. R. REYNOLDS, Panguitch, Utah.

WASHINGTON.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—H. J. TOMPKINS, Tacoma, Wash.; R. B. WILSON, headquarters, 631 Hoyt street, Portland, Oreg.; F. W. REED, Nespelem, Wash.

(R) Inspection of field work in Washington—E. T. ALLEN, Tacoma, Wash.

WEST VIRGINIA.

(M) Study of production of lumber grades from important southern hardwoods—E. A. BRANIFF, Panther, W. Va.; assistants, H. D. EVERETT, LOUIS MARGOLIN, W. H. VON BAYER, R. H. ALLEN, G. J. TRAUGOTT, E. R. SECREST, G. H. CECIL, and DOUGLAS RODMAN.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—R. C. HAWLEY, Shryock, W. Va.; assistant, MAX ROTHKUGEL.

WISCONSIN.

(F) Study of forest conditions in cooperation with the State—E. M. GRIFFITH, Madison, Wis.; assistant, R. F. NASH.

WYOMING.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—ELERS KOCH, Big Horn, Wyo.

REGIONAL STUDIES.

EASTERN STATES.

(F) Location and measurements of permanent sample plots—Prof. H. S. GRAVES, Yale Forest School, New Haven, Conn.; assistant, G. H. MYERS.

SOUTHERN APPALACHIANS.

(M) Studies of southern hardwoods—WALTER MULFORD in charge, Box 592, Knoxville, Tenn. In Tennessee, W. B. GREELEY, Hartranft, Claiborne Co., Tenn.; H. W. CHITTENDEN, Bear Spring, Stewart Co., Tenn. In Kentucky, H. D. MERRILL, Lombard, Ky.; A. B. PATTERSON, Kuttawa, Ky. In North Carolina, H. D. FOSTER, Eberman, McDowell Co., N. C.

SOUTHWESTERN STATES.

(E) Preparation of planting plans in New Mexico and Texas, in cooperation with landowners—G. L. CLOTHIER, Portales, N. Mex.

MIDDLE WEST.

(M) Woodlot examinations, in cooperation with landowners—W. G. WEIGLE, Box 161, Marion, Ohio.

WESTERN STATES.

(P) Seasoning and treating experiments in Washington, Wyoming, New Mexico, and Texas, in cooperation with the Northern Pacific, Southern Pacific, and Santa Fe railroads—R. P. IMES, headquarters, Missouri Botanical Gardens, St. Louis, Mo.

(P) Tie-seasoning experiments on lodgepole pine and western hemlock, Sheridan, Wyo., Tacoma and Pasco, Wash., and Sand Point, Idaho, in cooperation with Northern Pacific Railroad—H. B. EASTMAN, 720 Fifth avenue, Spokane, Wash.

(F) Study of forest grazing—A. F. POTTER, Box 1402, Denver, Colo., November 1 to 10; El Paso, Tex., November 15 to 18; return to Washington about November 25.

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United States Department of Agriculture,

BUREAU OF FORESTRY,

GIFFORD PINCHOT, Forester.

FIELD PROGRAMME FOR DECEMBER, 1904.

A schedule of field work and assignments in the Bureau of Forestry is issued monthly during the field season. The names of members whose assignments are indefinite and reference to projects for which plans have not been matured are necessarily omitted.

It is requested that the members of the Bureau cooperate in making this schedule complete and accurate. Information concerning errors or omissions, and changes of project or of address for the following month, should be sent by members to the offices of their respective chiefs not later than the 20th of the month.

Unless the address of a member is given in this schedule or is definitely known, he should be addressed in care of the Bureau of Forestry, Washington, D. C.

Work conducted under the direction of the Forester is designated (F); Dendrology (D); Forest Management (M); Forest Extension (E); Forest Products (P); Reserve Boundaries (R).

ADMINISTRATION.

GIFFORD PINCHOT, *Forester.*

OVERTON W. PRICE, *Associate Forester.*

GEO. B. SUDWORTH, *Chief of Dendrology.*

THOMAS H. SHERRARD, *Chief of Forest Management.*

WILLIAM L. HALL, *Chief of Forest Extension.*

HERMANN VON SCHRENK, *Chief of Forest Products.*

F. E. OLMSTED, *Chief of Section of Reserve Boundaries.*

JAMES B. ADAMS, *Chief of Records.*

FIELD WORK.

ALASKA.

(R) Examination of lands for new forest reserves, and additions to existing forest reserves—W. A. LANGILLE, Valdez, Alaska.

ARIZONA.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing reserves—R. E. BENEDICT, headquarters, Silver City, N. Mex.; S. J. HOLSINGER, Tucson, Ariz.; W. H. B. KENT, headquarters, Silver City, N. Mex.

ARKANSAS.

(P) Experiments in seasoning red and other inferior oaks, in cooperation with Frisco system—MANASSEH SMITH, Jr., Black Rock, Ark.

CALIFORNIA.

(F) Study of forest problems in cooperation with the State—W. C. HODGE, Jr.; headquarters, Occidental Hotel, San Francisco, Cal.; assistants, W. F. HUBBARD, P. D. KELLETER, C. G. SMITH, A. R. POWERS, and A. E. COHOON.

(D) Study of tanbark oak of Pacific coast—Prof. W. L. JEPSON; permanent address, Berkeley, Cal.

(D) Special studies of California trees, four-leaf pine, Torrey pine, Bishop pine—Prof. W. R. DUDLEY; permanent address, Stanford University, Cal.

(D) Study of native and exotic acacias—Prof. A. V. STUBENRAUCH; permanent address, Berkeley, Cal.

(E) Work on the Government nursery, San Gabriel Forest Reserve—T. P. LUKENS, Pasadena, Cal.; assistant, A. T. SEARLE.

(E) Study of chaparral, southern Sierras and northern California—L. C. MILLER, Occidental Hotel, San Francisco, Cal.; assistant, W. R. MATTOON.

(E) Study of forest reproduction, southern Sierras—S. J. FLINTHAM, Visalia, Cal.; assistant, W. B. HADLEY.

(E) Study of forest fires and methods of prevention, northern California, in cooperation with the State—E. A. STERLING, Occidental Hotel, San Francisco, Cal.; after December 5, Washington, D. C.

(P) Timber tests on red fir and western hemlock, in cooperation with the University of California—Prof. L. E. HUNT, Berkeley, Cal.; assistant, ROLF THELEN.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—H. J. TOMPKINS, Occidental Hotel, San Francisco, Cal.

COLORADO.

(M) Study of western yellow pine—H. M. CURRAN, Box 281, Durango, Colo.; assistants, J. E. KEACH, F. L. PRAY, and F. M. PATTON, Pagosa Junction, Colo.

(R) Examination of State lands, in cooperation with the State—CLYDE LEAVITT, Hotel Markham, Denver, Colo.

CONNECTICUT.

(P) Timber tests, with special reference to the influence of moisture on strength of southern pines, chestnut, and red spruce, in cooperation with Yale University—Prof. J. W. TOUMÉY and H. D. TIEMANN, Yale Forest School, New Haven, Conn.; assistant, CORNELIUS BARRY.

DISTRICT OF COLUMBIA.

(P) Preparation of report, and Acting Chief of Forest Products—HENRY GRINNELL.

(P) Timber tests, with special reference to rates of growth of Southern pines—H. S. BETTS; assistant, PREVOST HUBBARD.

(P) Tabulation and preparation of wood preservation data from field—C. G. CRAWFORD. (Also experiments in classifying, piling, and seasoning loblolly pine cross arms, in Maryland and Virginia.)

GEORGIA.

(D) Improved methods of turpentine orcharding, experimental pine forests (orchards) secured by cooperation with Powell, Bullard & Co.—FRANK KLARPP, Ocilla, Ga.; assistant, S. P. WOOLFOLK.

HAWAII.

(E) Examination of lands for insular forest reserves—R. S. HOSMER, Honolulu, Hawaii.

IDAHO.

(R) Preparation of forest map of Idaho—SMITH RILEY, Oxford, Idaho.

INDIANA.

(P) Timber testing at Lafayette, Ind., in cooperation with Purdue University—Dr. W. K. HATT, Lafayette, Ind.; assistant, C. H. HALL.

KENTUCKY.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. D. MERRILL, headquarters, Shenandoah Mt. House, West Augusta, Va.; A. B. PATTERSON, Mammoth Cave, Ky.; assistant, H. D. BURRALL.

MARYLAND.

(M) Preliminary examinations of timber lands, in cooperation with landowners—R. C. HAWLEY, Oakland, Md.

MICHIGAN.

(P) Experiments in seasoning and rafting cedar and tamarack telephone poles, in cooperation with the State and with several telegraph, telephone, and railroad companies—D. G. KINNEY, New Ludington Hotel, Escanaba, Mich.

MINNESOTA.

(F) Inspection of lumbering, marking of timber, and forest measurements upon lands to become the Minnesota National Forest Reserve—G. E. MARSHALL, Cass Lake, Minn.; assistants, W. E. LA FOUNTAIN, R. G. GIFFIN, GEO. FARLEY, W. R. MCKINNON, MARK BURNS, and J. S. BAIRD.

MISSISSIPPI.

(P) Experiments in seasoning loblolly pine, red gum, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Ackerman, Miss.

MISSOURI.

(P) Study of methods of wood preservation, in connection with the Louisiana Purchase Exposition Company, St. Louis, and in cooperation with several railroads—G. E. CLEMENT, Missouri Botanical Gardens, St. Louis, Mo.; assistants, R. W. AYRES and G. W. NOYES.

(P) Special timber tests, in connection with the Louisiana Purchase Exposition Company, and in cooperation with several railroads—Dr. W. K. HATT, headquarters, Purdue University, Lafayette, Ind.; assistants, H. D. HARTLEY, M. CLINE, O. P. M. GOSS, and W. L. BRIDGES, Missouri Botanical Gardens, St. Louis, Mo.

(P) Chemical experiments, with special reference to wood preservation and the determination of the constituents of creosote oil—E. B. FULKS, Missouri Botanical Gardens, St. Louis, Mo.

NEBRASKA.

(E) Work on Government nursery, Dismal River Forest Reserve—F. W. BESLEY, Halsey, Nebr.

(E) Study of forest replacement in Nebraska—Prof. C. E. BESSEY, Lincoln, Nebr.

NEW MEXICO.

(P) Seasoning and treating experiments, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—H. A. PAUL, Las Vegas, N. Mex.; assistant, FREDERICK DUNLAP.

(R) Examination of lands for new forest reserves, releases of lands from temporary withdrawals, additions to and eliminations from existing forest reserves—R. E. BENEDICT, Silver City, N. Mex.; R. V. R. REYNOLDS, Santa Fe, N. Mex.; S. J. HOLSINGER, headquarters, Tucson, Ariz.; W. H. B. KENT, Silver City, N. Mex.

NEW JERSEY.

(P) Seasoning experiments on chestnut poles, in cooperation with American Telegraph and Telephone Company—J. APPLETON, Hotel Dover, Dover, N. J., until December 15.

NEW YORK.

(M) Execution of working plan for U. S. Military Academy, West Point, N. Y., in cooperation with the War Department—R. L. MARSTON, permanent address, 270 Crown street, New Haven, Conn.

(P) Seasoning experiments on maple, beech, and birch cross-ties, with special reference to different methods of piling, in cooperation with New York Central Railroad—W. R. WHEATON, Utica, N. Y.

NORTH CAROLINA.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. D. FOSTER, Lenoir, Caldwell County, N. C.

(M) Study of southern hardwoods—W. B. GREELEY, Biltmore, N. C.; assistant, W. H. KEMPFER.

PENNSYLVANIA.

(P) Seasoning experiments on chestnut poles, in cooperation with the American Telephone and Telegraph Company—JOHN APPLETON, Hotel Taylor, Coatesville, Pa.

TENNESSEE.

(P) Experiments in seasoning beech, loblolly pine, and red oak, in cooperation with Illinois Central Railroad—M. C. JENSEN, Trimble, Tenn.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—H. W. CHITTENDEN, Nashville, Tenn.

TEXAS.

(P) Investigation of different methods of piling and laying ties, and tests of special forms of ties, in cooperation with Southern Pacific and Santa Fe railroads—FRANK TOMPKINS, Somerville, Tex.

(P) Tie-seasoning experiments, in cooperation with the Southern Pacific and Santa Fe railroads—H. J. BROWN, Silsbee, Tex.; assistant, C. E. FEAGIN.

(D) Study of forest conditions of the Big Thicket country—Prof. W. L. BRAY, Austin, Tex.

VIRGINIA.

(M) Study of production of lumber grades from important southern hardwoods—E. A. BRANIFF, Mabe, Scott County, Va.; assistants, LOUIS MARGOLIN, R. H. ALLEN, E. R. SECREST, G. H. CECIL, and W. G. DURBIN.

(M) Preliminary examinations of timberlands, in cooperation with landowners—H. D. MERRILL, Shenandoah Mt. House, West Augusta, Va.

WEST VIRGINIA.

(M) Study of southern hardwoods, and preliminary examinations of timberlands, in cooperation with landowners—R. C. HAWLEY, headquarters, Oakland, Md.; assistant, MAX ROTHKUGEL.

WISCONSIN.

(F) Study of forest conditions in cooperation with the State—E. M. GRIFFITH, Madison, Wis.

REGIONAL STUDIES.

EASTERN STATES.

(F) Location and measurements of permanent sample plots—Prof. H. S. GRAVES, Yale Forest School, New Haven, Conn.

SOUTHERN APPALACHIANS.

(M) Studies of southern hardwoods—WALTER MULFORD in charge, Box 592, Knoxville, Tenn. In Tennessee, H. W. CHITTENDEN, Nashville, Tenn. In Kentucky, H. D. MERRILL, headquarters, Shenandoah Mt. House, West Augusta, Va.; A. B. PATTERSON, Mammoth Cave, Ky. In North Carolina, H. D. FOSTER, Lenoir, N. C.; W. B. GREELEY, Biltmore, N. C.

SOUTH ATLANTIC STATES.

(M) Study of cottonwood and ash—W. D. STERRETT.

MISSISSIPPI VALLEY.

(M) Study of cottonwood and ash—G. M. HOMANS.

WESTERN STATES.

(P) Seasoning and treating experiments in Washington, Wyoming, New Mexico, and Texas, in cooperation with the Northern Pacific, Southern Pacific, and Santa Fe railroads—R. P. IMES, headquarters, Missouri Botanical Gardens, St. Louis, Mo.

(P) Tie-seasoning experiments on lodgepole pine and western hemlock, Sheridan, Wyo., Tacoma and Pasco, Wash., and Sand Point, Idaho, in cooperation with Northern Pacific Railroad—H. B. EASTMAN, 720 Fifth avenue, Spokane, Wash.

